

REMARKS

Claims 1-6 are pending in the application. In the above Non-Final Office Action the Examiner has rejected claims 1-6 in the manner discussed below.

Claim Rejections Under 35 U.S.C. §102

In the first rejection made within the above Office Action, the Examiner has rejected claims 1 and 3-5 as being anticipated by Spencer et al, US Patent 6,871,052, under 35 U.S.C. § 102(e).

Spencer Disclosure

Spencer is directed to an antenna diversity receiver including two antennas and associated signal processing (Abstract, Fig. 5). Spencer provides for measuring signal strength for two signals (Fig. 5, Col. 3, lines 51-65). However, it is important to note that Spencer uses the in-phase and quadrature downconversion blocks to measure only the amplitude of the two signals (Fig. 5, Col. 3, line 51-Col. 4, line 7), effectively preventing the receiver from demodulating data during the measurement cycle and therefore limiting receiver phase information, demodulation capability, and efficiency.

Differences Between Spencer and the Present Invention

Aspects of the present invention, as for example are disclosed in claims 1 and 5 as amended, are directed towards a dual diversity receiver with the capability of continuously monitoring and switching between two LNAs to improve spatial diversity performance while

also maintaining signal integrity. In particular, claims 1 and 5 are directed to a dual diversity receiver wherein both received signal amplitude and phase information are preserved in the signal monitoring process. Spencer, however, lacks at least such characteristics. More specifically, as noted above, the disclosure of Spencer describes a system using quadrature downconversion blocks to measure signal strength. This approach limits both efficiency and signal processing ability, unlike at least the above described aspects of the present invention. More particularly, the architecture of Spencer provides only signal amplitude information during a portion of the transmission cycle; signal phase information is lost during this period. Spencer notes that as a consequence of this architecture, the disclosed system cannot demodulate a signal during a portion of the measurement cycle (“the resultant signal is folded around zero frequency and therefore cannot be demodulated” Spencer, Col. 3, lines 54-55). As a result, information may be lost and/or the operational efficiency of the system described by Spencer limited because of the system’s requirement that a signal be unused, for purposes of demodulation, during a portion of the signal transmission cycle.

Further, Spencer describes that the simultaneous signal measurement is done during a signal preamble (“the diversity controller is able to compare the signal qualities from the two antennas during a preamble in the transmitted data and to determine which antenna . . . to use for the remainder of the data” Spencer, Col. 3, line 65- Col. 4, line 2). As a consequence of the described architecture, a signal quality measurement in fact must be done during a preamble or similar signaling period and cannot be done continuously, otherwise data will be lost due to the fact that during the measurement period the data “cannot be demodulated” Spencer, Col. 3, line 57.

Notwithstanding the above comments distinguishing Spencer from the present invention, independent claims 1 and 5 have been amended to further clarify that according to aspects of the present invention, signal quality, including both magnitude and phase information, may be preserved during a signal measurement cycle, unlike in the system disclosed in Spencer.

Accordingly, Spencer fails to anticipate all elements of the present invention, including at least elements directed to maintaining signal magnitude and phase information during signal characteristic measurements. Therefore, claims 1 and 5 as amended, as well as their associated dependent claims, should now be in condition for allowance.

For at least these reasons, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. § 102(e) are now moot. Applicant therefore requests that claims 1-6 as amended be allowed.

Claim Rejections Under 35 U.S.C. §103(a)

In another rejection made within the above Office Action, the Examiner has rejected claim 2 as being unpatentable over Spencer in view of Floyd, US Patent Publication 2005/0068099, and claim 6 as being unpatentable over Spencer in view of Wright et al, US Patent 5,696,798.

Claims 2 and 6 depend on claims 1 and 5 respectively. As discussed above, claims 1 and 5, as well as claims 2 and 6, have been amended to further distinguish them from Spencer. Consequently, the Examiner's rejection of the above claims under 35 U.S.C. § 103(a), which is

based primarily on Spencer, are now moot in light of the claim amendments. Therefore, Applicant requests that claims 1-6 be allowed.

New Claims

Applicant notes that additional claims 7-17 have been added based on aspects of the present invention. In light of the cited art and arguments presented above, these claims should also be in condition for allowance. For at least these reasons, Applicant requests that new claims 7-17 also be allowed.

Concluding Comments

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim except as specifically stated in this paper.

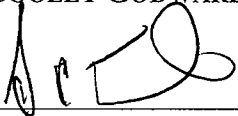
Applicant respectfully requests consideration of the remarks herein prior to further examination of the above-identified application. The undersigned would of course be available to discuss the present application with the Examiner if, in the opinion of the Examiner, such a discussion could lead to resolution of any outstanding issues.

Dated: March 6, 2007

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